

SECRET

# IRIS II-OPTICAL BAR CAMERA SYSTEM

NATIONAL PHOTOGRAPHIC  
INTERPRETATION CENTER

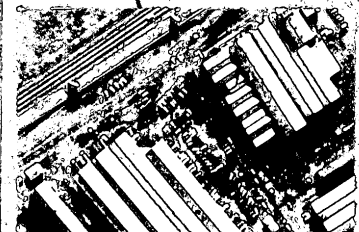
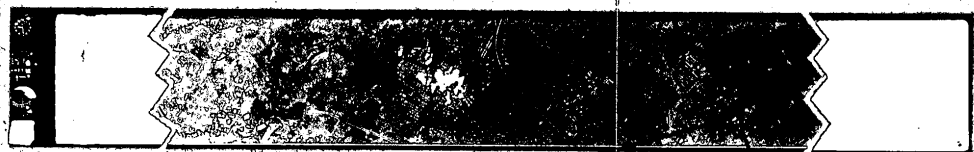
## CONFIGURATION DATA

A LIGHTWEIGHT, COMPACT, PANORAMIC CAMERA SYSTEM DESIGNED FOR ACQUISITION OF HIGH QUALITY PHOTOGRAPHY FROM A HIGH ALTITUDE RECONNAISSANCE VEHICLE. THE CAMERA'S OPTICAL BAR, WHOSE PRINCIPAL ELEMENT IS A ROTATING LENS CELL, PROVIDES PANORAMIC COVERAGE BY SCANNING ACROSS THE GROUND TRACK. 25° CONVERGENT STEREOSCOPIC GROUND COVERAGE CAN BE ACQUIRED.

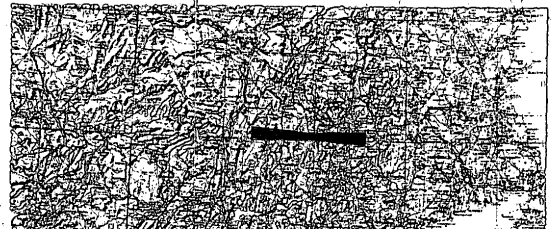
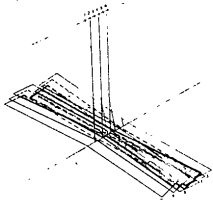
## PHOTOGRAPHIC DATA

LENS	f/3.5
FOCAL LENGTH	24"
SCAN ANGLE	140
SLIT WIDTH (VARIABLE)	.015 TO 0.25"
EXPOSURE RANGE (VARIABLE)	1/3,000 TO 1/70 SEC
EXPOSURE CONTROL	SENSOR
IMAGE MOTION COMPENSATION	TILTING STEREO GIMBAL
V/H RANGE/SENSED	.005 TO 0.015 RAD/SEC
FILTERS	EQUIVALENT TO W-23 A
CAMERA WEIGHT (INCLUDING FILM)	400 LBS
GROUND RESOLUTION	10'
FORWARD OVERLAP - FWD TO FWD OR AFT TO AFT (STEREO)	10%
CONVERGENCE ANGLE - VERTICAL TO VERTICAL (MONO)	20%
FILM TYPE	240A
FILM BASE	4.0 MIL
FILM WIDTH	5"
FILM LOAD (THIN BASE)	10,500'
FORMAT DIMENSIONS	4.5" X 58.65"
FRAMES/MISSION	2,100
TRANSVERSE COVERAGE	63.2 NM
LINEAR COVERAGE/FRAME (NAIDIR)	2.15 NM
LINEAR COVERAGE/MISSION	2,000 NM
SD, NAUTICAL MILES COVERAGE	126,400

DATA IS BASED ON 70,000 FT. ALTITUDE



## STEREO GROUND COVERAGE



N-1336 (1/69) REV 5/69

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N-1336 (1/69) REVISED 5/69

CONTROL NO.	
CLASSIFICATION	
TITLE	
REQUESTOR	DIAXX-4
DATE COMPLETED	5/69

25X1

SECRET

# KA-80 CAMERA SYSTEM (OPTICAL BAR-IRIS II)

NATIONAL PHOTOGRAPHIC  
INTERPRETATION CENTER

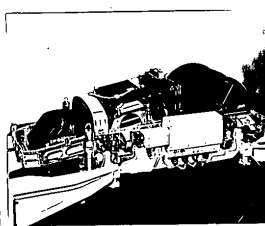
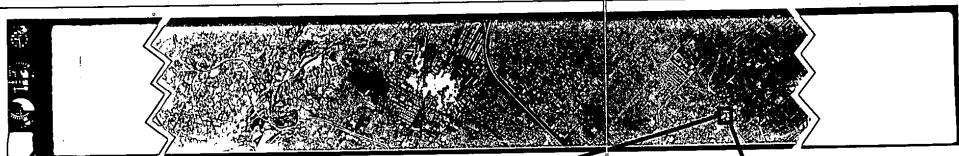
## CONFIGURATION DATA

A LIGHTWEIGHT, COMPACT, PANORAMIC CAMERA SYSTEM DESIGNED FOR ACQUISITION OF HIGH QUALITY PHOTOGRAPHY FROM A HIGH ALTITUDE RECONNAISSANCE VEHICLE. THE CAMERA'S OPTICAL BAR, WIDE PRINCIPAL ELEMENT IS A ROTATING LENS CELL, PROVIDES PANORAMIC COVERAGE BY SCANNING ACROSS THE GROUND TRACK. 75 CONVERGENT STEREOSCOPIC GROUND COVERAGE CAN BE ACQUIRED.

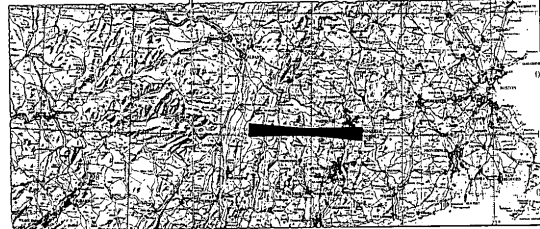
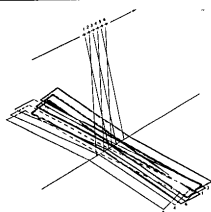
## PHOTOGRAPHIC DATA

LENS	F/3.5
FOCAL LENGTH	24"
SCAN ANGLE	140°
SLOT WIDTH (VARIABLE)	0.15 TO 0.25"
EXPOSURE RANGE (VARIABLE)	1/5,000 TO 1/200 SEC.
EXPOSURE CONTROL	SENSOR
IMAGE MOTION COMPENSATION	TILTING STEREO GIMBAL
V/H RANGE/SENSED	0.05 TO 0.05 RAD/SEC
FILTERS	EQUIVALENT TO W-23 A
CAMERA WEIGHT (INCLUDING FILM)	250 LBS.
GROUND RESOLUTION	10"
FORWARD OVERLAP TWO TO TWO OR AFT TO AFT	25°
CONVERGENCE ANGLE	3404
FILM TYPE	4.0 MIL
FILM BASE	5"
FILM WIDTH	10,500"
FILM LOAD (THIN BASE)	4.5" X 58.63"
FORMAT DIMENSIONS	2,100
FRAMES/MISSION	63.2 NM
TRANSVERSE COVERAGE	2.15 NM
LINEAR COVERAGE/FRAME (HORIZ)	2,000 NM
LINEAR COVERAGE/MISSION	123,400
SO. NAUTICAL MILES COVERAGE	

DATA IS BASED ON 70,000 FT. ALTITUDE



## STEREO GROUND COVERAGE



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NPIC N-1336 (1/69)

SECRET

**KA-80 CAMERA SYSTEM** (OPTICAL BAR - IRIS II)

NATIONAL PHOTOGRAPHIC  
INTERPRETATION CENTER


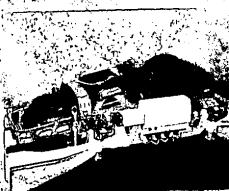
**CONFIGURATION DATA**

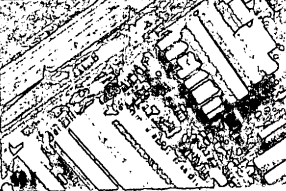
A LIGHTWEIGHT, COMPACT, PANORAMIC CAMERA SYSTEM DESIGNED FOR ACQUISITION OF HIGH QUALITY PHOTOGRAPHY FROM A HIGH ALTITUDE RECONNAISSANCE VEHICLE. THE CAMERA'S OPTICAL BAR, WIDE PRINCIPAL ELEMENT IS A ROTATING LENS CELL, PROVIDES PANORAMIC COVERAGE BY SCANNING ACROSS THE GROUND TRACK. 25 CONVERGENT STEREOSCOPIC GROUND COVERAGE CAN BE ACQUIRED.

**PHOTOGRAPHIC DATA**

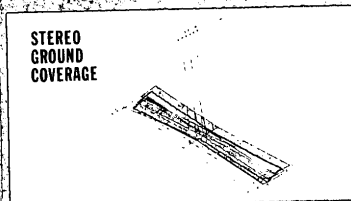
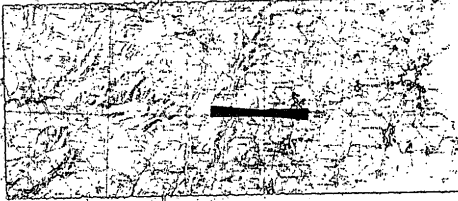
LENS	F/3.5
FOCAL LENGTH	24"
SCAN ANGLE	140°
SLIT WIDTH (VARIABLE)	.015 TO 0.25"
EXPOSURE RANGE (VARIABLE)	1/5,000 TO 1/1,000 SEC.
EXPOSURE CONTROL	SELECON
WINDY MOTION COMPENSATION	25 CONVERGENT STEREOSCOPIC
WIND RANGE/SENSOR	.005 TO 0.05 RAD/SEC
FILTERS	EQUIVALENT TO W-23 R
CAMERA WEIGHT (INCLUDING FILM)	200 LBS.
GROUND RESOLUTION	15'
CONVERGENCE ANGLE	25°
FILM TYPE	35MM
FILM BASE	4.0 MIL
FILM WIDTH	5"
FILM LEAD (FROM BASE)	10,500"
PERMANENT DIMENSIONS	4.5" X 36.65"
PERMANENT WEIGHT	2,300
TRANSVERSE COVERAGE	63.2 MM
LINEAR COVERAGE/FRAME (MADRI)	2.15 MM
LINEAR COVERAGE/POSITION	3,200 MM
SR. NAUTICAL MILES COVERAGE	122,400

DATA IS BASED ON 70,000 FT. ALTITUDE



**STEREO GROUND COVERAGE**

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CONTROL NO.	N-1336
CLASSIFICATION	
DATE	
BY	
REVIEW	
APPROVAL	
REMARKS	
1/69	1/69 TSSG

25X1